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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _17 September 2009_.
2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-4 and 7-12_ is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-4 and 7-12_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _10 February 2005_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a) ☐ All　b) ☐ Some * c) ☐ None of:
　　　　1. ☐ Certified copies of the priority documents have been received.
　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.
　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 1 objected to because of the following informalities: the dashes ("-") in lines 5, 7, and 10 of the claim never existed in the previous submissions of claims and the current claims should reflect as such. Future amendments should **not** include the dashes.

2.   Claim 2 objected to because of the following informalities: the dashes ("-") in lines 2 and 4 of the claim where removed in the previous amendments of claims and the current claims should reflect as such. Future amendments should **not** include the dashes.

3.   Claim 7 objected to because of the following informalities: the dashe ("-") in line 14 of the claim never existed in any of the previous amendments of claims and the current claims should reflect as such. Future amendments should **not** include the dash.

Claim Rejections - 35 USC § 112

     The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   **Claims 1-4, 7-12** rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.   **Claim 1** recites the limitation "the sectors received" in lines 7-8 of the claim.
There is insufficient proper antecedent basis for this limitation in the claim. It is unclear
as to which if any of the claimed "one or more sectors" *(line 5 of the claim)* sent to the
data processing system correspond to "the sectors received". Dependent **claims 2-4**
inherit the defects of the parent claim(s).

6.   **Claim 7** recites the limitation "the sectors received" in lines 7-8 of the claim.
There is insufficient proper antecedent basis for this limitation in the claim. It is unclear
as to which if any of the claimed "one or more sectors" *(line 5 of the claim)* sent to the
data processing system correspond to "the sectors received".

7.   **Claim 8** recites the limitation "the transmitted sectors" in line 10 of the claim.
There is insufficient proper antecedent basis for this limitation in the claim. It is unclear
as to which if any of the claimed "one or more sectors" *(line 8 of the claim)* correspond
to "the transmitted sectors". Dependent **claims 9-12** inherit the defects of the parent
claim(s).

8.   **Claim 8** recites the limitation "the sector address<u>es</u>" in lines 11-12 of the claim.
There is insufficient proper antecedent basis for this limitation in the claim. Dependent
claims 9-12 inherit the defects of the parent claim(s).

9.   **Claim 9** recites the limitation "the transmitted sectors" in line 5 of the claim.
There is insufficient proper antecedent basis for this limitation in the claim.

10.   **Claim 10** recites the limitation "the transmitted sectors" in line 3 of the claim.
There is insufficient proper antecedent basis for this limitation in the claim.

11.   **Claim 11** recites the limitation "the received sectors" in lines 4-5 of the claim.

There is insufficient proper antecedent basis for this limitation in the claim. It is unclear

as to which if any of the claimed "one or more sectors" *(line 8 of claim 8, or line 3 of*

claim 11) sent to the data processing system correspond to "the received sectors".

12.   **Claim 12** recites the limitation "the subtime codes" in line 5 of the claim. There is

insufficient proper antecedent basis for this limitation in the claim.

13.   **Claim 12** recites the limitation "the sector header" in line 6 of the claim. There is

insufficient proper antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

14.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15.   **Claims 8, 10-12** rejected under 35 U.S.C. 102(b) as being anticipated by **Min**

(US Patent # 5936917, hereinafter "Min").

Consider **claim 8**, Min discloses a system for reading and/or writing data

contained on a recording medium having one or more sessions *(one session;*

abstract, FIGS. 1-4), comprising:

a micro controller, coupled to the recording medium, that

references the data using subcode time codes; a data processing system,

coupled to the micro controller, that references the data using a sector

address, each sector address is contained in a sector header *(a sub-Q*

code area 102 for containing a sub-Q code which signals the standard

position information of a frame, a header area 103 for recording position

information of the respective frames: column 1, lines 13-23; column 3,

lines 28-35); wherein, for each session on the recording medium, the

micro controller transmits one or more sectors to the data processing

system, obtains, from the data processing system, sector headers

corresponding to the transmitted sectors, calculates a difference between

the subcode time codes and the sector addresses included in the sector

headers received from the data processing system *(abstract; FIG. 1-4;*

column 3, line 1-column 4, line 4), and uses the difference to access data

from the recording medium for a specified time *(calculation occurs due to*

read command: FIG.4, column 2, lines 1-14. Furthermore, a read is

dependent on how and where the data was written, thereby the calculation

during the write indirectly was taken into account when reading data:

column 2, lines 1-14).

Consider **claim 10**, and as applied **to claim 8** above, Min discloses the

system comprising a memory, coupled to the micro controller and the data

processing system, wherein the micro controller stores the transmitted sectors in

the memory memory *(The method includes the providing a read-out command to*

a controller in the CD-ROM drive, searching for a sub-Q code area of a first

frame and reading the sub-Q code of the sub-Q code area according to the read-

out command and storing the same, by means of the controller, enabling a

decoder in the CD-ROM drive and reading header information which is the

primary output from the decoder, by means of the controller, calculating the

difference between the stored sub-Q code and the stored header information:

abstract; column 2, lines 1-25; column 3, lines 24-25).

Consider **claim 11**, and as applied **to claim 8** above, Min discloses the

system, wherein, for each session on the recording medium, the data processing

system, receives one or more sectors from the micro controller, and transmits, to

the micro controller, sector headers corresponding to the received sectors

(abstract; FIG. 1-4; column 3, line 1-column 4, line 4).

Consider **claim 12**, and as applied **to claim 8** above, Min discloses the

system, wherein each sector header has absolute time information, wherein each

subcode time code is associated with absolute time fields of a q- channel of a

subcode frame, and wherein the micro controller calculates the difference

between the subtime codes and the sector header using the absolute time

information in the sector headers and in the absolute time fields *(S540-S555:*

FIG. 4).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

>   1.   Determining the scope and contents of the prior art.
>   2.   Ascertaining the differences between the prior art and the claims at issue.
>   3.   Resolving the level of ordinary skill in the pertinent art.
>   4.   Considering objective evidence present in the application indicating
>   obviousness or nonobviousness.

3.   **Claims 1, 3, 4, 7** rejected under 35 U.S.C. 103(a) as being unpatentable over

Min (US Patent # 5936917, hereinafter "Min").

            Consider **claim 1**, Min discloses a method for synchronizing a micro

controller using subcode time codes and a data processing system using sector

addresses of data contained on a recording medium *(abstract, FIG. 1-4)*,

comprising the steps of:

            sending, by the micro controller, one or more sectors to the data

            processing system; requesting, by the micro controller, information about

            the sector headers of the sectors received by the data processing system

            from the data processing system, the information about the sector headers

including at least a sector address*(a sub-Q code area 102 for containing a sub-Q code which signals the standard position information of a frame, a header area 103 for recording position information of the respective frames: column 1, lines 13-23; column 3, lines 28-35)*; and calculating, by the microcontroller, a difference between the subcode time codes and the sector addresses using the information about the sector headers *(abstract; FIG. 1-4; column 3, line 1-column 4, line 4)*, the micro controller taking the calculated difference into account when the micro controller requests to read data of a specified time from the recording medium *(calculation occurs due to read command: FIG.4, column 2, lines 1-14. Furthermore, a read is dependent on how and where the data was written, thereby the calculation during the write indirectly was taken into account when reading data: column 2, lines 1-14)*.

However, Min may not specifically disclose repeating the synchronisation steps for different sessions recorded on the same recording medium. In other words, Claim 1 differs from Min in that more than one session is recorded on the recording medium, and the synchronizations steps of Min are repeated for each session.

Examiner takes official notice, that it is common knowledge for the skilled person in the art, that there exists Multisession CDs, which differ from CD-ROM essentially in that multiple different sessions can be recorded sequentially. It is also common knowledge that for each different session, there is a different TOC

on the disc. Min teaches that "the sub-Q code and header act as a lapse from the end of the TOC of the CD-ROM to the position of interest on the CD-ROM *(column 3, lines 1-6)*". It is obvious that this teaching can be applied for each new TOC of a multisession CD, leading each time to the same type of offset problem. When confronted with known multisession CDs, the skilled person in the field would inevitably desire to solve the same problem of Min in this context, meaning for each session. Each of the problems occurring for each different session can obviously be solved by the same synchronizing method as defined in Min, which means that the method of Min can be applied to each of the sessions of a multisession CD. In particular, there is no new technical problem implied by the fact that the CD would contain several sessions, other than a repetition of the same problem already defined and solved in Min. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to repetitively apply the solution of Min to each of the different sessions of a multisession CD.

Consider **claim 3**, and as applied **to claim 1** above, Min discloses the method further comprising the step of storing, during the sending the one or more sectors from the micro controller to the data processing system, the one or more sectors in a memory *(The method includes the providing a read-out command to a controller in the CD-ROM drive, searching for a sub-Q code area of a first frame and reading the sub-Q code of the sub-Q code area according to the read-*

out command and storing the same, by means of the controller, enabling a

decoder in the CD-ROM drive and reading header information which is the

primary output from the decoder, by means of the controller, calculating the

difference between the stored sub-Q code and the stored header information:

abstract; column 2, lines 1-25; column 3, lines 24-25).

Consider **claim 4**, and as applied **to claim 1** above, Min discloses the
method wherein absolute time information conveyed in the sector headers and in
absolute time fields of a q-channel of the subcode frame is used for calculating
the difference between the subcode time codes and the sector addresses *(S540-*
S555: FIG. 4).

Consider **claim 7**, Min discloses Apparatus for reading from and/or writing
to recording media, with a micro controller using subcode time codes and a data
processing system using sector addresses of data contained on a recording
medium, *(abstract, FIG. 1-4)* comprising:

> means for sending one or more sectors from the micro controller to
> the data processing system; means for requesting information about the
> sector headers of the sectors received by the data processing system
> from the data processing system, the information about the sector headers
> including at least a sector address *(a sub-Q code area 102 for containing*
> *a sub-Q code which signals the standard position information of a frame, a*

header area 103 for recording position information of the respective

frames: column 1, lines 13-23; column 3, lines 28-35); and means for

calculating the difference between the subcode time codes and the sector

addresses using the information about the sector headers (abstract; FIG.

1-4; column 3, line 1-column 4, line 4); means for taking the calculated

difference into account when the micro controller requests to read data of

a specified time from the recording medium (calculation occurs due to

read command: FIG.4, column 2, lines 1-14. Furthermore, a read is

dependent on how and where the data was written, thereby the calculation

during the write indirectly was taken into account when reading data:

column 2, lines 1-14).

However, Min may not specifically disclose wherein the apparatus repeats

synchronisation steps for different sessions recorded on the same recording

medium. In other words, Claim 1 differs from Min in that more than one session is

recorded on the recording medium, and the synchronizations steps of Min are

repeated for each session.

Examiner takes official notice, that it is common knowledge for the skilled

person in the art, that there exists Multisession CDs, which differ from CD-ROM

essentially in that multiple different sessions can be recorded sequentially. It is

also common knowledge that for each different session, there is a different TOC

on the disc. Min teaches that "the sub-Q code and header act as a lapse from the

end of the TOC of the CD-ROM to the position of interest on the CD-ROM

(column 3, lines 1-6)". It is obvious that this teaching can be applied for each new

TOC of a multisession CD, leading each time to the same type of offset problem.

When confronted with known multisession CDs, the skilled person in the field

would inevitably desire to solve the same problem of Min in this context, meaning

for each session. Each of the problems occurring for each different session can

obviously be solved by the same synchronizing method as defined in Min, which

means that the method of Min can be applied to each of the sessions of a

multisession CD. In particular, there is no new technical problem implied by the

fact that the CD would contain several sessions, other than a repetition of the

same problem already defined and solved in Min. Therefore, it would have been

obvious to a person of ordinary skill in the art at the time the invention was made

to repetitively apply the solution of Min to each of the different sessions of a

multisession CD.

4.   **Claim 2** rejected under 35 U.S.C. 103(a) as being unpatentable over **Min (US
Patent # 5936917, hereinafter "Min")** as applied to **claim 1** above, and further in view
of **Ludtke et al. (PGPUB US 2002/0089517, hereinafter "Ludtke")**.

        Consider **claim 2**, and as applied **to claim 1** above, Min discloses the

method of claim 1.

        However, Min may not specifically disclose the method further comprising

the steps of: asking, by the micro controller, the data processing system for a

confirmation of sector reception; and checking, using a continuity counter in the data processing system, if the expected sectors were received.

Ludtke discloses a method of data transmission *(title; abstract; paragraphs 14-20)* further comprising the steps of: asking, by a controller, a data processing system for a confirmation of sector reception *(acknowledgement protocol: paragraph [0005])*; and checking, using a continuity counter in the data processing system, if the expected sectors were received *(the continuity counter of data blocks to detect a loss of data blocks: paragraph [0053])*.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an acknowledgment protocol and continuity counter in the system of Min, because this aids data integrity, ensures data is received correctly or not, and can indicate if a resend of data is required. Furthermore, it would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.

1.   **Claim 9** rejected under 35 U.S.C. 103(a) as being unpatentable over **Min (US Patent # 5936917, hereinafter "Min")** as applied to **claim 8** above, and further in view of **Ludtke et al. (PGPUB US 2002/0089517, hereinafter "Ludtke")**.

Consider **claim 9**, and as applied **to claim 8** above, Min discloses the system of claim 8.

However, Min may not specifically disclose the system including the data processing system further comprises a continuity counter that counts each sector received from the micro controller, wherein the data processing system transmits to the micro controller a confirmation acknowledging receipt of the transmitted sectors.

Ludtke discloses a system with data transmission *(title; abstract, paragraphs 14-20)*, including a data processing system further comprises a continuity counter that counts each sector received from a controller *(the continuity counter of data blocks to detect a loss of data blocks: paragraph [0053])*, wherein the data processing system transmits to a controller a confirmation acknowledging receipt of the transmitted sectors *(acknowledgement protocol: paragraph [0005])*.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an acknowledgment protocol and continuity counter in the system of Min, because this aids data integrity, ensures data is received correctly or not, and can indicate if a resend of data is required. Furthermore, it would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.

Response to Arguments

1.   Applicant's arguments filed 09/17/2009 have been fully considered but they are
not persuasive. See above rejections and further explanation below.

2.   Examiner notes a typo in the status of the claims in Applicant's
Remarks/Arguments submitted 9/17/2009 *(page 5, first sentence of first paragraph).*
Claims 1-4, and 7-12 are in fact pending.

3.   Applicant argues Min does not disclose the newly amended steps of claim 1
including, "sending, by the micro controller, one or more sectors to the data processing
system; requesting, by the micro controller, information about the sector headers of the
sectors received by the data processing system from the data processing system, the
information about the sector headers including at least a sector address". Examiner
respectfully disagrees. Min discloses, as seen in FIG. 4, sending sectors and requesting
of information about the sector heads of the sectors, wherein the sector headers
including at least a sector address *(abstract; FIG. 1-4; column 3, line 1-column 4, line
4).* Min specifically discloses "a sub-Q code area 102 for containing a sub-Q code which
signals the standard position information of a frame, a header area 103 for recording
position information of the respective frames" *(column 1, lines 13-23; column 3, lines
28-35).*

4.   Applicant argues Min uses the difference to adjust a recording structure of a
master stamper. This may or may not be true. However, Min teaches the system uses
the difference when the controller requests to read data of the recording medium. In Min
the calculation occurs due to read command *(FIG.4, column 2, lines 1-14).* Furthermore,

a read is dependent on how and where the data was written, thereby the calculation

during the write indirectly was taken into account when reading data *(column 2, lines 1-*

14).

5.   Applicant argues Min does not teach repeating the synchronization steps. In

response to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA

1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner

relies on official notice.

6.   In response to applicant's argument that Min's methods are for facilitating a

master stamper: If the prior art structure is capable of performing the intended use, then

it meets the claim. In response to applicant's arguments concerning claim 1, the test for

obviousness is not whether the features of a secondary reference may be bodily

incorporated into the structure of the primary reference; nor is it that the claimed

invention must be expressly suggested in any one or all of the references. Rather, the

test is what the combined teachings of the references would have suggested to those of

ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

7.   In response to applicant's arguments concerning claims 1 and 7, the recitation

"synchronizing subcode time codes and sector addresses" has not been given

patentable weight because the recitation occurs in the preamble. A preamble is

generally not accorded any patentable weight where it merely recites the purpose of a

process or the intended use of a structure, and where the body of the claim does not

depend on the preamble for completeness but, instead, the process steps or structural

limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA

1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In

other words, Applicant claims define "synchronizing" as to contain only the steps of

sending, requesting and calculating.

8.   Applicant argues dependent claims and all other claims for same reasons as

claim 1. See above rejections and response to the claims in question.

9.   Applicant argues Ludkte does not disclose the preamble of claim 1. In response

to applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA

1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore,

see above response concerning the preamble.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew R. Chrzanowski whose telephone number is

(571)270-1176. The examiner can normally be reached on M-F, 9-5.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matt Kim/
Supervisory Patent Examiner, Art
Unit 2186

/M. R. C./
Examiner, Art Unit 2186
9/24/2009